

TECHNICAL SUPPORT DOCUMENT AND STATEMENT OF BASIS

FOR AIR QUALITY CONTROL PERMIT NO. 42253

ISSUED TO FNF CONSTRUCTION, INC.

For

70-00 SOIL CEMENT PLANT

September 10, 2007

Table of Contents

I.	INTRODUCTION	3
II.	FACILITY DESCRIPTION	3
III.	COMPLIANCE HISTORY	4
IV.	EMISSIONS	4
V.	APPLICABLE REGULATIONS	6
VI.	PREVIOUS PERMITS AND CONDITIONS	7
VII.	MONITORING AND RECORD KEEPING REQUIREMENT	8
VIII.	LIST OF ABBREVIATIONS.....	9

I. INTRODUCTION

This Class II synthetic minor permit is a renewal of Permit Number 1001332. This permit is issued to FNF Construction for the operation of a portable soil cement concrete batch plant currently located in the state of Nevada. FNF has no plans to relocate to Arizona in the immediate future..

A. Company Information

Mailing Address: 115 S. 48th Street,
Tempe, AZ 85281

Facility Address: I-40 Mile Post 148
Ashfork, AZ 86320

B. Attainment Classification

The proposed source is a portable soil cement concrete batch plant which is currently located in Ashfork, Arizona. This area is designated an "Attainment area" having ambient air pollutant concentration equal to or less than national primary or secondary ambient air quality standards for all criteria pollutants: particulate matter less than 10 microns in diameter (PM₁₀), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), carbon monoxide (CO), lead (Pb), and ozone (O₃).

The concrete batch plant will have the authority to operate statewide, in both attainment and non-attainment areas.

II. FACILITY DESCRIPTION

A. Process Description

1. Equipment

FNF Construction owns the portable soil cement concrete batch plant that consists of the following equipment:

- a. Cement Silo
- b. Fly Ash Silo
- c. Scalping Screen
- d. Scale belts (3)
- e. Loading Hopper
- f. Pug Mill

2. Process

The soil cement plant produces stabilized material for road base construction by mixing the proper proportions of aggregates, cement, and water. The materials are mixed in a closed pug mill, and wetted at the discharge end of the pug mill. The product is then loaded into belly dump haul trucks that deliver to the work site(s).

A front-end loader feeds pre-wetted soil to a scalping screen, which removes material above a certain size. This sorted material has cement and water added and is then mixed in the pug mill.

B. Air Pollution Control Equipment

Both non-point and point source emissions occur within the concrete batch plant process. FNF Construction must control particulate emissions for both types of sources. Point source emissions resulting from the transfer of cement to the silo are vented through a baghouse filtering system in order to minimize particulate emissions. The amount of emissions generated during the transfer of sand and aggregate depends primarily on the surface moisture content of these materials.

Non-point sources, such as vehicle traffic and wind erosion from sand and aggregate storage piles are controlled by good maintenance and regular wetting of the road surface and storage piles with water and/or the use of dust suppressants. Dust suppression is handled through the use of both a water truck and spray bars.

III. COMPLIANCE HISTORY

A. Testing and Inspections

FNF Construction (Place ID: 12962 has had two Air Quality facility inspections and one review associated with this facility (Inspection IDs: 22846, 22896, and 97284). No Air Quality cases and/or violations appear to have been developed for this facility regarding the above mentioned inspections. FNF Construction is currently in-compliance and has no outstanding Air Quality enforcement issues at this time regarding the above referenced Place ID and associated Air Quality Permits. Inspections are being regularly conducted on this source to ensure compliance with the permit conditions.

B. Excess Emissions

There were no excess emissions reported to ADEQ for this facility.

IV. EMISSIONS

The emissions calculations for the permit review process relied upon emission factors drawn from the Arizona Department of Environmental Quality (ADEQ) application packet for concrete batch Plant operations. The emission factors in this packet are derived from the EPA's Compilation of Air Pollution Emission Factors fifth edition (AP-42).

This facility has uncontrolled PM and PM₁₀ emissions, when operating for 8,760 hours per year, of 1019.46 and 380.28 tons per year (tpy) respectively. These figures include point source and fugitive emissions. Under Arizona Administrative code (A.C.C.) R18-2-101(104)(a), significant levels of PM₁₀ and NO_x emissions are 15 and 40 tpy respectfully. A.A.C. R-18-2-302(B)(2)(iii) states that a Class II permit shall be required any sources that emits or has the potential to emit, without controls, significant quantities of regulated air pollutants. Therefore, the Permittee is required to obtain a permit.

Table 1 depicts the controlled and uncontrolled point source PM₁₀ emissions in tpy for the concrete batch operations. The sum of the controlled PM₁₀ emissions is 5.4 tpy. Haul roads and storage piles are classified as fugitive emissions and are not included to determine major source classification.

Table 1 - Total uncontrolled emissions from plant - operating 8760 hours per year

Emission Unit	Uncontrolled PM (tpy)	Uncontrolled PM₁₀ (tpy)
Plant Emissions	838.0	333.91
Screener		1.35
Haul Road Emissions	181.36	45.0
Storage Pile Emissions	0.0129	0.0064
Total Emissions	1019.46	380.28

Table 2 - Total controlled emissions (lb/hr) from plant - operating 8760 hours per year

Emission Unit	Controlled PM (tpy)	Controlled PM₁₀ (tpy)
Plant Emissions	10.68	4.07
Screener		0.31
Haul Road Emissions	4.14	1.03
Storage Pile Emissions	0.0029	0.0015
Total Emissions	64.94	23.66

V. APPLICABLE REGULATIONS

The Permittee has identified the applicable regulations that apply to each unit in its permit application. Table 3 summarizes the findings of the Department with respect to the regulations that apply to each emissions source.

Table 3: Verification of Applicable Regulations

Unit ID	Date of Manufacture	Control Device	Applicable Regulations	Verification
Concrete Batch Plant	N/A	Wetting agents	A.A.C. R18-2-723	Standards of Performance for Existing Concrete Batch Plants. This regulation references rules A.A.C. R18-2-604 through A.A.C. R18-2-607
Transfer Points (10)	N/A	Water Sprays/ Water Truck	A.A.C. R18-2-606	Dust control requirements for material handling operations.
Aggregate Storage Piles and Haul Roads	N/A	Water Sprays/ Water Truck	A.A.C. R18-2-604.A	Dust control requirements for open areas and parking areas when in use or under construction.
			A.A.C. R18-2-604.B	Dust control requirements for driving over open areas.
			A.A.C. R18-2-605.B	Dust control requirements for airborne emissions from material being transported
			A.A.C. R18-2-606	Dust control requirements for material handling operations
			A.A.C. R18-2-607	Dust control requirements for storage piles.
			A.A.C. R18-2-610	Opacity restriction for non-point

FNF Construction has included details in the permit application about engines that qualify as nonroad engines. Such engines may be subject to Title 40 of the Code of Federal Regulations Part 89. The Department will determine if such engines meet the definition of nonroad engines

on an engine by engine basis and therefore is not making a determination if the engines listed in the permit application meet the qualifications of a nonroad engine as part of this permitting process.

VI. PREVIOUS PERMITS AND CONDITIONS

A. Previous Permits

This section compares the conditions contained in the new permit, with the conditions of the previous permit. Table 4 displays information on the previous permit no. 1001332, which was issued on June 7, 2001, and permit no. 4159-95 issued on January 27, 1993.

Table 4: Previous Permits

Date of Permit Issuance	Permit Number	Application Basis
June 7-2001	1001332	Operating Permit
January 27, 1993	4159-95	Operating Permit

B. Previous Permit Conditions

1. Operating Permit No. 1001332

The air quality operating permit was issued to FNF Construction, Inc. in July 7, 2001, to operate equipment associated with concrete batch operations. Table 5 shows the requirements listed in Permit Number 1001332 and illustrates whether these requirements were revised, kept, deleted, or streamlined and where if applicable, the requirement is located in the new Permit.

**Table 5: Previous Permit Conditions Attachment “B”
Permit 1001332 to 42253**

Location in Permit No. 1001332	Determination				Location in Permit 42253	Comments
	Revise	Maintain	Delete	Streamline		
Attachment B:						
II(A)(1)						Emission Limitation Standards
II(B)						Air Pollution Control
II(C)	x				II(C)(2)	Added Permit Shield
Attachment C:			x		N/A	Removed listing of applicable regulations as this information is now contained in the permit shields for each section of the permit.
Attachment D:	x				Attachment C	Equipment list moved to Attachment C
Attachment E:	x				Attachment D	Conditions for operation inside Pima County have been updated.
Attachment F:	x				Attachment E	Conditions for operation inside Pinal County have been updated.
Attachment G:	x				Attachment F	Conditions for operation inside Maricopa County have been updated.

VII. MONITORING AND RECORD KEEPING REQUIREMENT

Opacity Monitoring Requirements

The Permittee is required to conduct a monthly survey of the visible emissions from all dust emission sources. The Permittee is required to create a record of the date on which the survey was taken, the name of the observer, and the results of the survey.

If the Permittee finds that on an instantaneous basis the visible emissions appear to be in excess of the opacity standard, then the Permittee is required to conduct a six-minute Method 9 observation. If this observation indicates opacity in excess of the standard, then the Permittee is required to report it as excess emissions. In addition, the Permittee is required to adjust the process equipment or process control equipment to bring the opacity below the standard.

VIII. LIST OF ABBREVIATIONS

A.A.C.	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
AQD	Air Quality Division
A.R.S.	Arizona Revised Statutes
CFR	Code of Federal Regulations
EPA	U.S. Environmental Protection Agency
hr	Hour
lb	Pound
PM	Particulate Matter
PM ₁₀	Particulate Matter Nominally less than 10 Micrometers
PTE	Potential-to-Emit
TPY	Tons per Year
yr	Year